

WHAT IS CLAIMED IS:

1. A shutter device for the precision flow-control comprising organs for shutting a section for the passage of a flow, the motion of which is proportional to that of an actuator controlling it, wherein said device comprises at least two shutter organs controlled by the actuator by means of a transmission configured to obtain slightly different proportionality coefficients for the motion of said organs.

2. A device as in Claim 1, wherein said shutter organs both have a rotary motion controlled by a motor shaft by means of a transmission configured to transmit to the shutter organs the motion of said shaft with slightly different transmission ratios.

3. A device as in Claim 2, wherein the transmission ratios are reduction ratios.

4. A device as in Claim 2, wherein said rotary shutter organs are in the form of plugs, butterflies or grids configured to move independently of each other.

5. A device as in Claim 2, wherein said transmission comprises gears, rollers or chain.

6. A device as in Claim 2, further comprising a grid shutter wherein said shutter organs have an aperture in the form of a crown section with the same axis, internal and external radii, the aperture being limited to an angle less than or equal to 2π .

7. A device as in Claim 5, wherein the aperture is limited to an angle of less than or equal to π .

8. A device as in Claim 1, wherein said shutter organs both have a linear motion.

9. A device as in Claim 8, wherein said shutter organs are curtain shutters.

10. A method of precisely controlling fluid flow in a high-precision control valve, the method comprising:

providing a shutter device comprising organs for shutting a section thereof, wherein said device comprises at least two shutter organs proportionally controlled by a single actuator;

providing a transmission between the actuator and the organs, the transmission providing a different proportionality coefficient for each of the organs;

placing the shutter device in a fluid flow path;

actuating the organs in to allow a controlled quantity of fluid to pass through the shutter device.

11. The method of Claim 10, wherein the controlled quantity of fluid is proportional to a difference between said proportionality coefficients.

12. The method of Claim 10, wherein the proportionality coefficients comprise transmission ratios of gear sets between the actuator and the organs.

13. The method of Claim 10, wherein the first and second organs rotate about a common axis.

14. The method of Claim 10, wherein said shutter device is present in a vehicle selected from the group consisting of an aeronautical vehicle and a space vehicle.

15. A method of precisely controlling transmission of electromagnetic radiation, the method comprising:

providing a shutter device comprising organs for shutting a section thereof, wherein said device comprises at least two shutter organs proportionally controlled by a single actuator;

providing a transmission between the actuator and the organs, the transmission providing a different proportionality coefficient for each of the organs;

placing said shutter device in a flow path of electromagnetic radiation;

actuating the organs to allow a controlled quantity of radiation to travel through the shutter device.

16. The method of Claim 15, wherein the electromagnetic radiation is visible light.

17. The method of Claim 15, wherein the controlled quantity of radiation is proportional to a difference between said proportionality coefficients.

18. The method of Claim 15, wherein the proportionality coefficients comprise transmission ratios of gear sets between the actuator and the organs.

19. The method of Claim 15, wherein the first and second organs rotate about a common axis.

20. The method of Claim 15, wherein said electromagnetic radiation is visible light.

21. The method of Claim 20, wherein said shutter device is present in a device selected from the group consisting of a projector and a radiation detector.